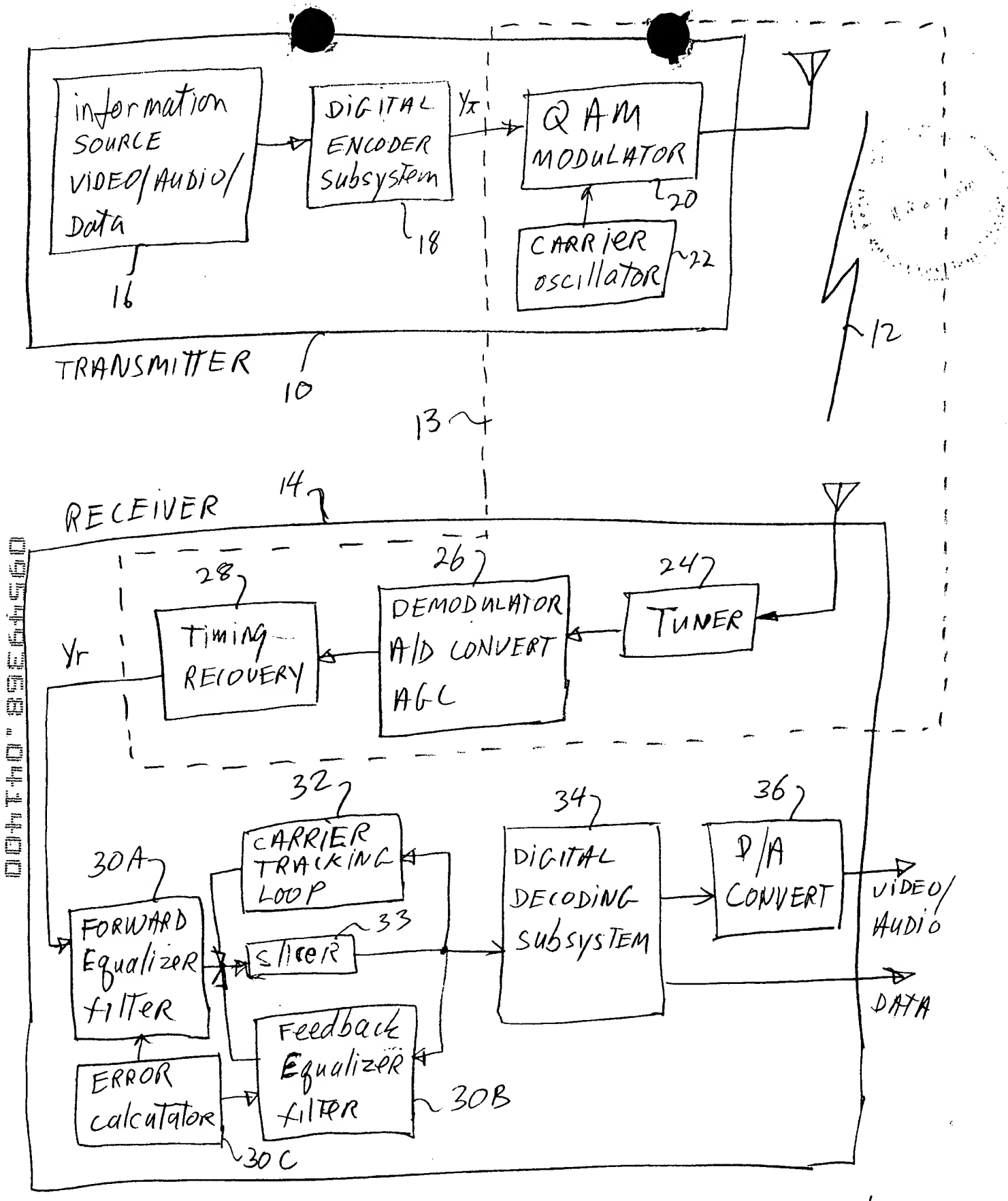
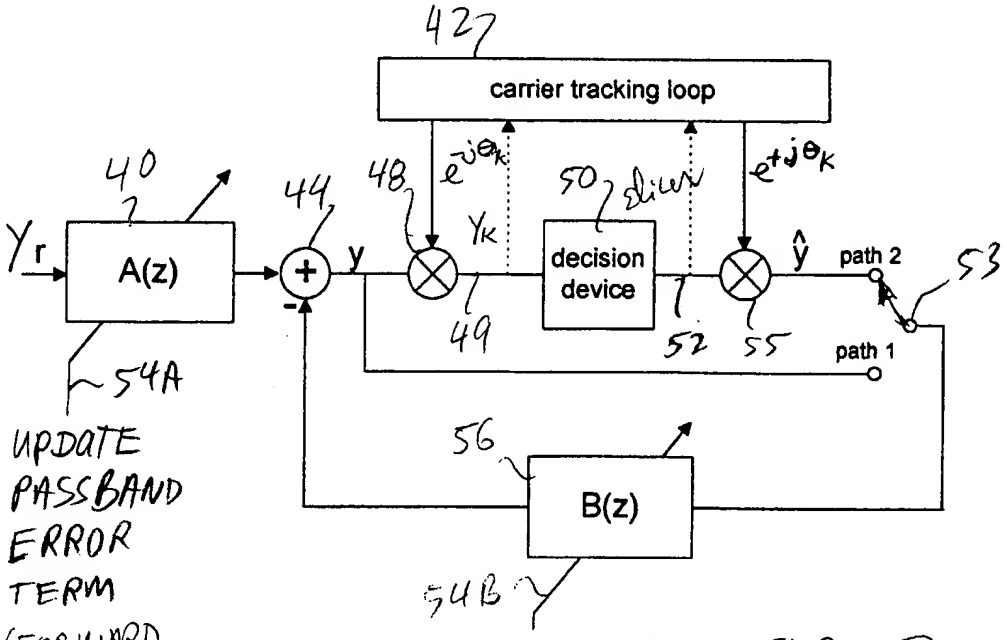

information SOURCE VIDEO/AUDIO/ Data
16
DIGITAL ENCODER Subsystem
18
Yt
QAM MODULATOR
20
CARRIER oscillator
22
TRANSMITTER
10
12
13
RECEIVER
14
Yr
28
Timing RECOVERY
26
DEMODULATOR A/D CONVERT AGC
24
TUNER
32
CARRIER TRACKING LOOP
30A
FORWARD Equalizer filter
33
Slicer
Feedback Equalizer filter
30B
ERROR calculator
30C
34
DIGITAL DECODING Subsystem
36
D/A CONVERT
VIDEO/ AUDIO
DATA

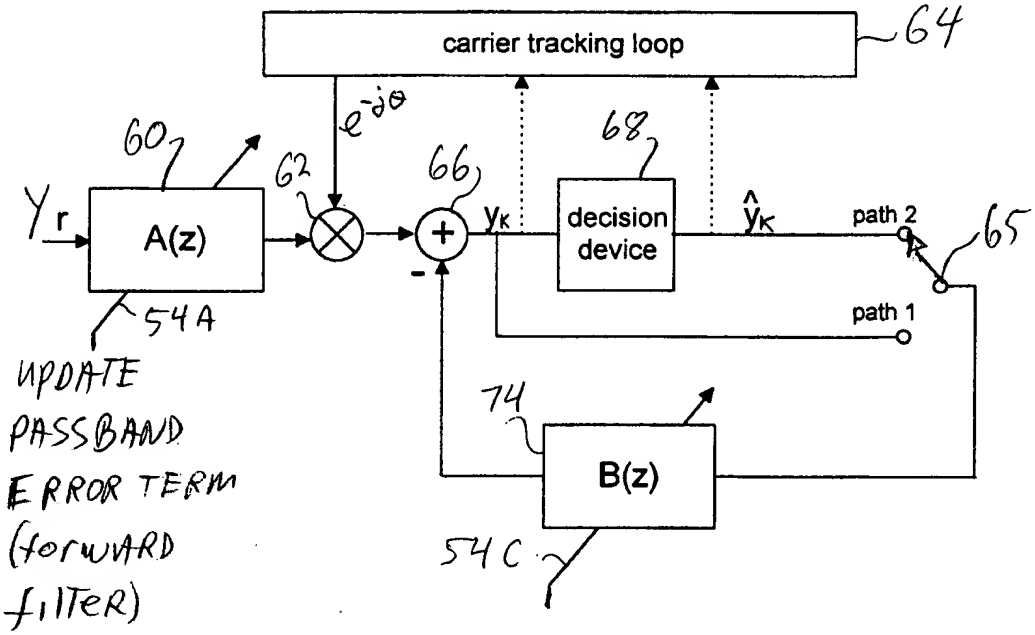
FIG 1



UPDATE PASSBAND ERROR TERM (FORWARD FILTER)

UPDATE PASSBAND ERROR TERM (feedback filter)

FIG 2



UPDATE PASSBAND ERROR TERM (forward filter)

UPDATE BASEBAND ERROR TERM (feedback filter)

FIG 3

0004400 : 05/05/98

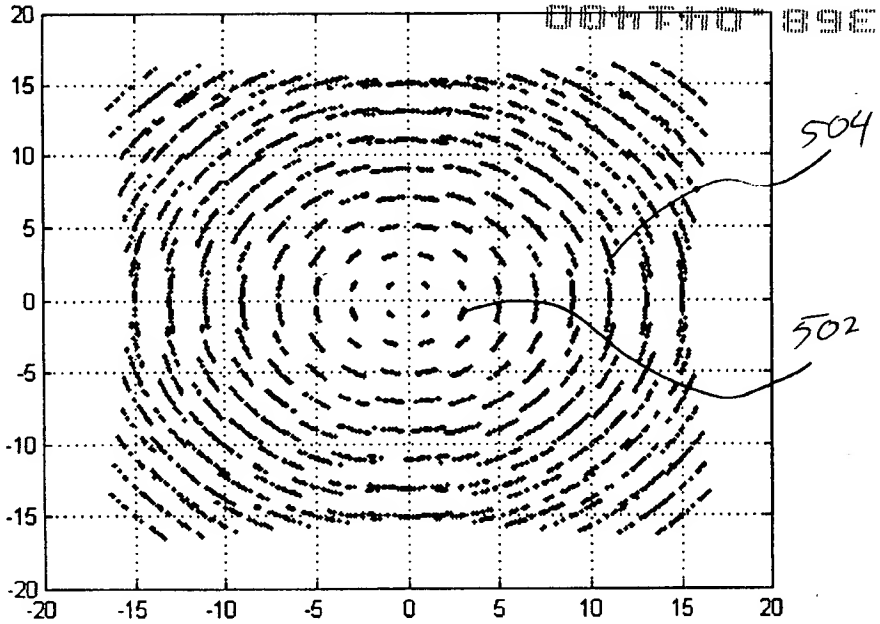


FIG 5A

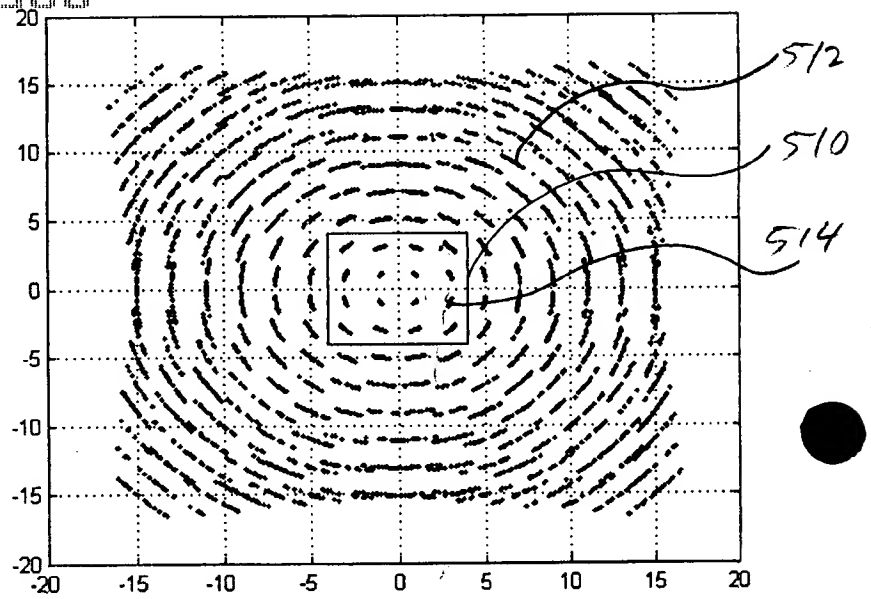


FIG 5B

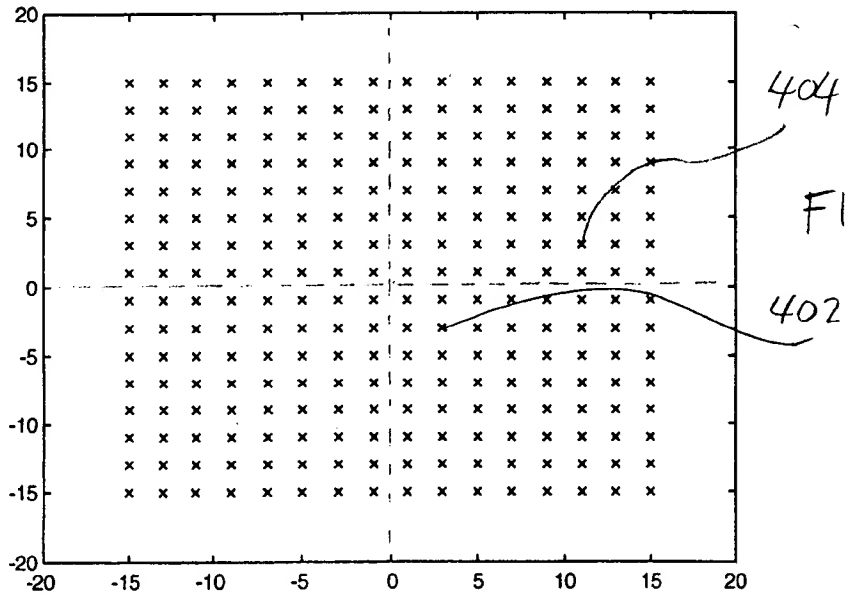


FIG 4

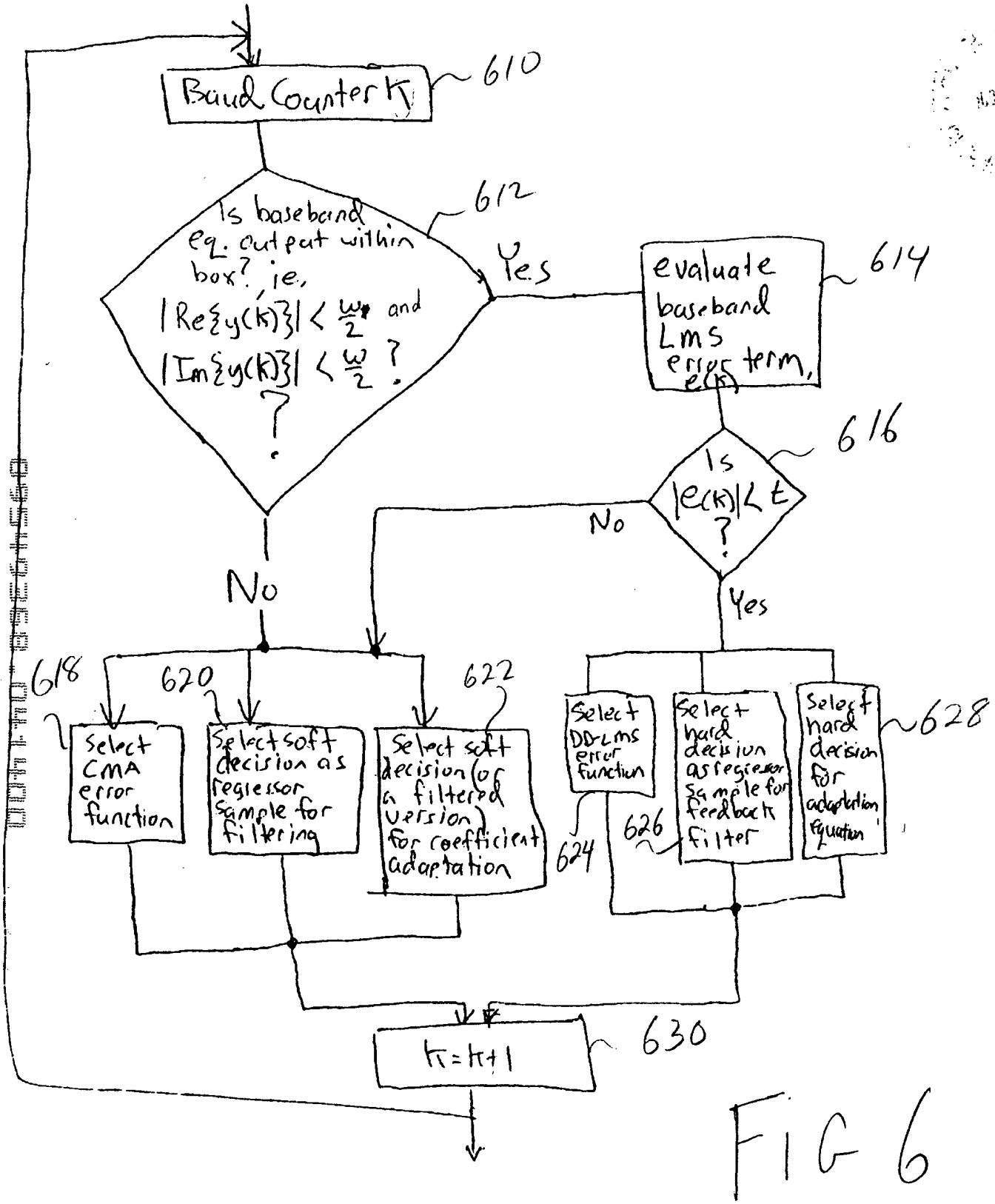
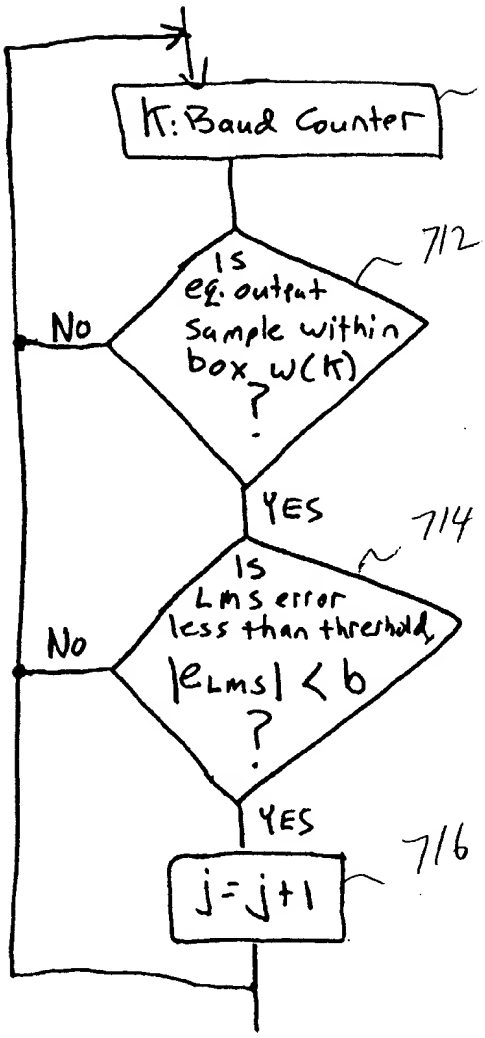

Baud Counter k
610
Is baseband eq. output within box? ie., |Re{y(k)}| < w/2 and |Im{y(k)}| < w/2 ?
612
Yes
evaluate baseband Lms error term, e(k)
614
Is |e(k)| < t ?
616
No
Yes
No
618
620
622
Select CMA error function
Select soft decision as regressor sample for filtering
Select soft decision (or a filtered version) for coefficient adaptation
Select DD-Lms error function
624
626
Select hard decision as regressor sample for feedback filter
Select hard decision for adaptation equation
628
k=k+1
630

FIG 6



Counter j calculation

Fig 7

D04f4D0 : 05f5E3E5

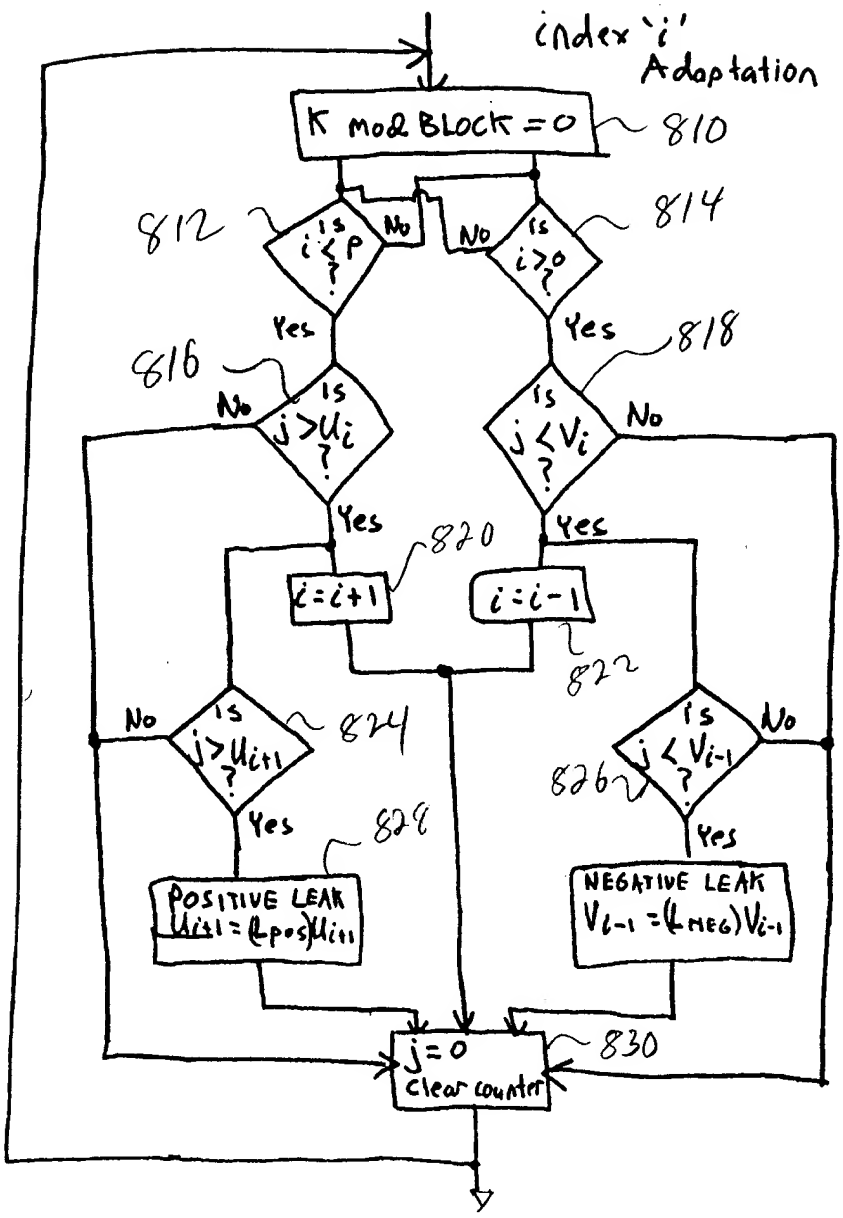


Fig 8

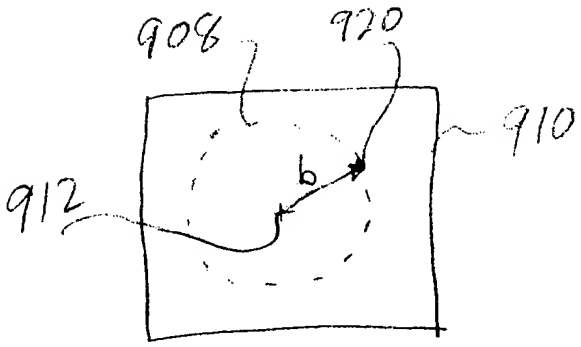


Fig 9A

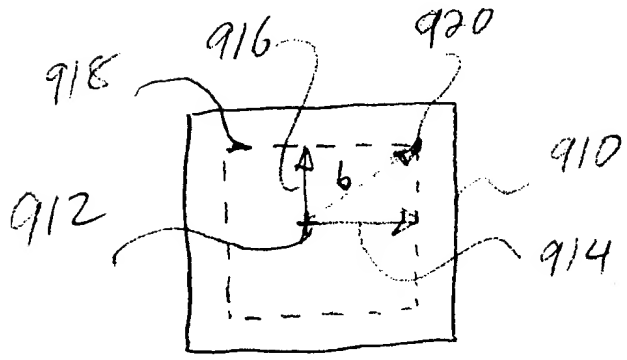


Fig 9B